

LISTING OF THE CLAIMS

1.-35. (Cancelled)

36. (Currently Amended) A solid oxide fuel cell comprising:
an anode;
a cathode;
an electrolyte comprising stabilized zirconia, wherein the electrolyte is intermediate the anode and the cathode; and
an interconnect providing a current pathway from the anode, the interconnect ~~comprising~~ consisting essentially of a uncoated ferritic stainless steel including consisting essentially of:
greater than 25 weight percent chromium,
0.75 up to 1.5 weight percent molybdenum,
up to 0.05 weight percent carbon,
up to 0.05 weight percent of at least one of hafnium or zirconium,
less than about 1 weight percent silicon,
less than 0.25 weight percent aluminum,
less than about 0.25 weight percent tungsten,
less than about 1 weight percent manganese,
less than 0.04 weight percent nitrogen,
less than 0.01 weight percent sulfur,
less than 0.05 weight percent phosphorus;
less than about 0.25 weight percent copper,
~~and~~
at least one of niobium, titanium, or tantalum, wherein the weight percentages of niobium, titanium, and tantalum satisfy the equation
$$0.5 \leq (\%Nb + \%Ti + \frac{1}{2}(\%Ta)) \leq 1, \text{ and}$$

balance of iron;
wherein the steel has a coefficient of thermal expansion within about 25 percent of the coefficient of thermal expansion of stabilized zirconia between 20°C and 1000°C and exhibits at least one creep

property selected from the group consisting of creep rupture strength of at least 1000 psi at 900°C, time to 1% creep strain of at least 100 hours at 900°C under load of 1000 psi, and time to 2% creep strain of at least 200 hours at 900°C under load of 1000 psi.

37. (Previously Presented) The solid oxide fuel cell of claim 36, wherein the coefficient of thermal expansion of the steel is at least as great as the coefficient of thermal expansion of stabilized zirconia between 20°C and 1000°C .

38. (Previously Presented) The solid oxide fuel cell of claim 36, wherein the coefficient of thermal expansion of the steel is at least as great as the coefficient of thermal expansion of yttria-stabilized zirconia between 20°C and 1000°C.

39. (Previously Presented) The solid oxide fuel cell of claim 36, wherein the steel comprises:

25 up to 35 weight percent chromium;
0.75 to less than 1.5 weight percent molybdenum;
up to 0.005 weight percent carbon; and
at least one of niobium, titanium, or tantalum, wherein the steel includes no more than 0.50 weight percent titanium, and the weight percentages of niobium, titanium, and tantalum satisfy the equation

$$0.5 \leq (\%Nb + \%Ti + \frac{1}{2}(\%Ta)) \leq 0.75.$$

40. (Previously Presented) The solid oxide fuel cell of claim 36, wherein the steel includes no more than 0.50 weight percent titanium.

41. (Cancelled).

42. (Previously Presented) The solid oxide fuel cell of claim 36, wherein the weight percentages of niobium, titanium and tantalum satisfy the equation

$$0.5 \leq (\%Nb + \%Ti + \frac{1}{2}(\%Ta)) \leq 0.75.$$

43. (Previously Presented) The solid oxide fuel cell of claim 36, wherein the steel includes no more than 0.50 weight percent titanium and the weight percentages of niobium, titanium, and tantalum satisfy the equation

$$0.5 \leq (\%Nb + \%Ti + \frac{1}{2}(\%Ta)) \leq 1.$$

44.-54 (Canceled)